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3400 Forest Pest Management

Hazard Tree Evaluation, Green Canyon Campground, Zigzag Ranger District

Forest Supervisor of Mt. Hood NF

On October 7, Gregory M. Filip, Plant Pathologist, from Forest Pest Management, Regional Office, visited the Zigzag Ranger District. Purpose of the visit was to examine the Green Canyon Campground for hazard trees. He was accompanied by Joel Holtrop, District TMA; Gordon Pearigen, District ORA; Tom Cox, Zone Silviculturist; and Kurt Kessler, Small Sales Administration.

Green Canyon Campground is located on the Salmon River and contains 15 camping units. The campground is in a stand composed of old-growth Douglas-fir, western redcedar, and western hemlock. Understory tree species are primarily hemlock. Shrubs and young trees are abundant around some units and completely lacking in and around others. A striking feature of the campground is the magnificant old-growth Douglas-firs, some reaching 200 feet in height.

The District had marked, with blue paint, about 35 trees for removal. Most of these were the largest Douglas-fir in the campground. Some old-growth cedar and hemlock were also marked. On this visit, each tree that was marked, as well as unmarked trees with failure indicators for removal, were thoroughly examined for failure potential and target proximity.

Many trees had signs of high failure potential: brown cubical rot caused by *Phaeolus schweinitzii* in Douglas-fir and butt or trunk rot in hemlock, including rot caused by Indian paint fungus, *Echinodontium tinctorium*. These trees were drilled with long, thin bits in an electric drill or with an increment borer using the following guidelines for sound rind thickness:

DBH (in.)	Rind (in.)	DBH (in.)	Rind (in.)
36	5.5	52	8.0
40	6.0	56	8.5
44	6.5	60	9.0
48	7.0	64	9.5

Generally, most of the hemlocks were marked correctly for removal because they did not have enough sound supporting rind for their diameters. Some of the Douglas-firs and cedars should not have been marked since they did have enough sound supporting rind. These trees were previously judged unsafe because they were cruised as partially sound or complete culls. Campground trees should not be marked for removal based solely on cruise estimates for wood products. A tree cruised as cull may have enough sound wood for adequate support in developed recreation sites. Such trees should be drilled to accurately determine sound rind thickness and treated if they do not meet this standard.

Most of the old-growth Douglas-firs and cedars in the campground were marked for removal because of potentially hazardous dead limbs or tops. Some of these trees were directly above camping units; others were in areas used infrequently for picnicking or hiking.

Proposed Regional direction for hazard trees states that dead limbs and tops constitute a low degree of hazard unless located directly above frequently used areas such as camping units. Also, wood of Douglas-fir and cedar is not prone to serious decay, and most limbs and tops fail during the winter season when wind, snow, and ice loads are at a maximum. The proposed Regional direction is based on about 15 years of data from Oregon, Washington, and California concerning tree failures in developed recreation sites.

We believe that most of the Douglas-firs and cedars that were marked for removal because of dead limbs or tops should not be removed because they have low failure potentials. Only where dead branches are directly over camping units should such trees be treated. The normal solution would be to climb these trees and remove the branches. Instead, because of limited budgets, the District chose to remove the entire tree.

Tree removal, especially old-growth trees which may be a hallmark of a campground, should be the last resort. Moving the target should also be considered to reduce hazard. Shooting with high velocity soft-tipped bullets may also be effective in removing long, dead limbs.

The District should consider developing a vegetative management plan for Green Canyon Campground. Many parts of the campground are devoid of vegetation and show soil erosion from years of heavy use. Also, if most of the old-growth is removed, a plan should be available to address replacement of trees that are removed. Regional Office recreation specialists and pathologists are available to assist the District in developing a vegetative management plan.

FPM pathologists also are available to assist the District in evaluating hazard trees in other campgrounds or giving training sessions concerning hazard tree recognition and reduction.

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